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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,048	08/28/2001	Takeshi Nishi	SEL 274	5731

7590 08/10/2004

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EXAMINER

YAMNITZKY, MARIE ROSE

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/941,048	Applicant(s) NISHI ET AL.	
	Examiner Marie R. Yamnitzky	Art Unit 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 May 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. This Office action is in response to applicant's amendment received May 03, 2004, which amends claims 1, 3, 5, 7, 9 and 11.

Claims 1-12 are pending.

2. Claims 1-12 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement for reasons of record in the Office action mailed December 23, 2003. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 stand rejected under 35 U.S.C. 103(a) as being unpatentable over O'Brien et al. in *Appl. Phys. Lett.* Vol. 74, No. 3, pp. 442-444 or Baldo et al. in *Appl. Phys. Lett.* Vol. 75, No. 1, pp. 4-6, either reference in view of Salbeck et al. in *Synthetic Metals* 91, pp. 209-215, for reasons of record in the Office action mailed December 23, 2003.

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5. Claims 5-12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Grushin et al. (US 2002/0121638 A1) in view of Salbeck et al. in *Synthetic Metals* 91, pp. 209-215, for reasons of record in the Office action mailed December 23, 2003.

6. Applicant's arguments filed May 03, 2004 have been fully considered but they are not persuasive.

With respect to the rejection under 35 U.S.C. 112, first paragraph, applicant's amendment does not overcome the rejection. The original claims required an "organic electroluminescence element" and required an "organic luminescent layer". The present claims more broadly recite "electroluminescence element" and "luminescent layer". While the claims require the luminescent layer to comprise an organic compound, it is the examiner's position that the presence of an organic compound in the luminescent layer does not make the layer an organic luminescent layer *per se*, and does not make the electroluminescence element an organic electroluminescence element *per se*. For example, the present claims do not require that the compound ultimately responsible for light emission from the luminescent layer be an organic compound. An organic luminescent layer and an organic electroluminescence element would conventionally be thought of by one of ordinary skill in the art as having an organic compound as the compound ("compound" being used here by the examiner to encompass materials such as oligomers and polymers) ultimately responsible for light emission from the luminescent layer.

With respect to the prior art rejections, applicant argues that "Salbeck et al. do not disclose an organic compound for converting triplet excitation energy into light to be emitted

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(phosphorescence material)", and do not disclose "the intention or the advantage of using a spiro compound for the organic compound."

Present claims 1, 2 and 5-8 require a spiro compound as the host material of the luminescent layer.

Present claims 3 and 4 require a spiro compound as a component of a hole transport layer that is distinct from the luminescent layer.

Present claims 9-11 require a spiro compound as a component of a hole blocking layer that is distinct from the luminescent layer.

The spiro compounds of the present claims are not required to emit light via a triplet state (i.e. are not required to function as phosphorescence materials) and, as disclosed in the present specification, a material other than a spiro compound is used as the phosphorescent material. The primary references (O'Brien et al., Baldo et al., and Grushin et al.,) disclose EL elements comprising phosphorescent materials.

Salbeck et al. teach that compounds having a spiro-linkage have improved processability and morphologic stability, compared to the related compounds which have no spiro-linkage, while retaining the electronic properties of the related compounds which have no spiro-linkage. Salbeck et al. teach that use of compounds having a spiro-linkage leads to devices having increase thermal stability compared to devices made with the related compounds which have no spiro-linkage. One of ordinary skill in the art at the time of the invention would have been motivated by the teachings of Salbeck et al. to use a compound having a spiro-linkage in place of the related compound having no spiro-linkage in the devices of the primary references in order to

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obtain the benefits provided by the use of a compound having a spiro-linkage, such as increased thermal stability of the resulting device. Argued advantages of the present invention, such as higher durability of the EL element due to the increased glass transition temperature and molecular stability of the spiro compounds, are not unexpected given the teachings of Salbeck et al.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 6:30 a.m. to 4:00 p.m. Monday, Tuesday, Thursday and Friday, and every other Wednesday from 6:30 a.m. to 3:00 p.m.

The current fax number for Art Unit 1774 is (703) 872-9306 for all official faxes. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

MRY  
August 05, 2004



MARIE YAMNITZKY  
PRIMARY EXAMINER

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